CLAIMS

We claim:

1. A method of attaching an ostomy appliance to a peristomal skin surface surrounding a stoma of a wearer of said appliance, the method comprising the following steps:

providing a set of at least two wafers for adhesively attaching said ostomy appliance to said peristomal skin surface, each wafer of said set comprising an adhesive layer consisting of a skin barrier material and having a distal surface covered by a flexible backing layer for attaching said wafers to a collecting bag and a proximal bodyside surface that is contoured such that said adhesive layer has a relatively thin peripheral portion and a relatively thick central portion surrounding an aperture for receiving said stoma, said central portion having a maximum thickness which is at least 2.5 mm larger than the maximum thickness of said peripheral portion, the individual wafers of said set differing from one another in that the topography of the surface of said central portion is different,

evaluating the topography of said peristomal surface and said stoma,

selecting a specific wafer from among the wafers in said set based on said topographical evaluation such that the topography of the surface of said central portion of said specific wafer has the best fit to said topography of said peristomal surface and said stoma, and

locating and adhesively attaching said selected specific wafer on said peristomal surface such that said best fit is exploited.

2. The method of claim 1 wherein said central portion is annular and has a surface area substantially uniformly distributed around said aperture.

3. The method of claim 1 wherein said distal surface of said barrier layer is substantially planar.

4. A method of producing a wafer for attaching an ostomy appliance to a peristomal skin surface surrounding a stoma of a specific wearer of said appliance, said wafer comprising an adhesive layer consisting of a skin barrier material and having a distal surface for attaching said wafer to a collecting bag and a proximal bodyside surface for adhering to said peristomal skin surface, the method comprising the following steps:

providing a representation of the topography of said peristomal surface and said stoma,

based on said representation, manufacturing a mold having a surface configuration substantially matching said topography of said peristomal surface and said stoma of said specific wearer, and

utilizing said mold for molding said bodyside surface of said adhesive layer to achieve a close fit between a wafer molded in said mold and said topography.

5. A method according to claim 4, wherein said method further comprises the step of producing the representation by making one of a cast or an impression of said peristomal surface and stoma.

6. A method according to claim 4, wherein said method further comprises the steps of:

producing said representation in digital form by scanning said peristomal surface and stoma or by scanning said cast or impression,

utilizing said digital representation to produce a mold, and

molding said wafer in said mold.

7. A method according to claim 6, wherein said digital representation is obtained by scanning with at least one of the group consisting of x-rays, light rays or ultrasound.

8. A method of attaching an ostomy appliance to a peristomal skin surface surrounding a stoma of a specific wearer of said appliance by means of a wafer comprising an adhesive layer consisting of a skin barrier material and having a distal surface for attaching said wafer to a collecting bag and a proximal bodyside surface for adhering to said peristomal skin surface, the method comprising the following steps:

manufacturing said wafer by means of a method according to any of the claims 49-55, said representation being a representation of the topography of the peristomal surface of said specific wearer, and

locating and adhesively attaching said wafer on said peristomal surface such that a close fit of said bodyside surface of said wafer to said peristomal surface and stoma is achieved.

9. A mold for producing a wafer for adhesively attaching an ostomy appliance to a peristomal skin surface surrounding a stoma of a wearer of said appliance, said wafer comprising an adhesive layer consisting of a skin barrier material and having a sharply defined outer periphery, the mold comprising a first part and a second part adapted for having molding surfaces thereof pressed against one another such that mold hollows in one or both said surfaces together define the configuration of said adhesive layer, at least one periphery defining body for defining said outer periphery being arranged in a groove in a surface of one of the first or second part such that said body is displaceable in the direction towards the other part.

10. A mold according to claim 9, wherein a biasing means is arranged in said groove in one of said first and second parts for biasing said body in said direction towards the other part when said parts are pressed together.

11. A mold according to claim 9, wherein said body is annular and comprises one of the group of outwardly convex portions, substantially rectilinear portions, and outwardly concave portions or indentations.

12. A method of producing a wafer for adhesively attaching an ostomy appliance to a peristomal skin surface surrounding a stoma of a wearer of said appliance, said wafer comprising an integrally molded adhesive layer consisting of a skin barrier material and having a substantially planar distal surface covered by a flexible backing layer for attaching said wafer to a collecting bag and a proximal contoured bodyside surface having a first surface topography such that said adhesive layer has a relatively thin peripheral portion and a relatively thick central portion surrounding an aperture for receiving said stoma, said proximal surface being covered by a release layer and said central portion having a maximum thickness which is at least 2 mm larger than the maximum thickness of said peripheral portion, the method comprising the steps of:
providing a first mold for pre-forming said release layer and provided with a first mold hollow having a second surface topography similar to said first surface topography, said hollow being provided with suction apertures communicating with a vacuum source,
providing a second mold for molding said adhesive layer having a first part and a second part adapted for being pressed against one another, said first part being provided with a second mold hollow for defining said first surface topography of said adhesive layer,
providing a substantially continuous supply of a sacrificial web,

arranging said skin barrier material on said sacrificial web,

providing a substantially continuous supply of release web,

heating an area of said release web for enhancing the deformability thereof,

locating said heated area in register with said first mold hollow,

applying vacuum to said suction apertures such that said area is sucked into said hollow and thereby deformed such that said area is provided with a third surface topography substantially identical to said second surface topography,

relieving said vacuum application,

displacing said area into register with said second mold hollow such that said third surface topography with said second surface topography,

displacing a portion of said sacrificial web with barrier material thereon into register with said second mold hollow such that said area is located between said portion and said second mold hollow, and

pressing said second part against said first part such that said area and said portion are pressed into said second mold hollow.

13. A method of laminating a wafer comprising:

applying said flexible backing layer to said distal surface,

applying a flexible release sheet to said proximal surface,

providing a resilient laminating pad or tampon adapted for being displaced to and fro in a laminating direction and for exerting a laminating pressure in said laminating direction,

providing a plane counter-pressure surface at substantially right angles to said laminating direction,

placing said wafer on said counter-pressure surface with said plane backing layer abutting said counter-pressure surface, and

displaying said laminating pad in said laminating direction such that laminating pressure is exerted on the entire distal surface of said wafer by said laminating pad.

14. A method according to claim 13, wherein the surface of said laminating pad destined to exert said laminating pressure on said wafer is domed or convex in said laminating direction.

15. A method according to claim 13, wherein said laminating pad is made of silicone.

16. A method according to claim 13, wherein said laminating pad is a printer's pad designed for printing on a surface.

17. A method according to claim 13, wherein said laminating pad has a hardness between SHORE A3 and SHORE A9.

18. A method according to claim 13, wherein said laminating pad has a hardness between SHORE A5 and SHORE A7.

19. A method according to the claim 13, wherein said counter-pressure surface is adapted for being displaced to and fro in said laminating direction.

20. A method according to claim 13, wherein said counter-pressure surface is the surface of a resilient counter-pressure pad.

21. A method accordingly to claim 20, wherein said counter-pressure pad is made of one of silicone or neoprene.

22. A method according to claim 20, wherein the surface of said counter-pressure pad destined to abut said backing layer is domed or convex in the direction opposite said laminating direction.

23. A laminating station for laminating a wafer comprising:
a resilient laminating pad or tampon adapted for being displaced to and fro in a laminating direction and for exerting a laminating pressure in said laminating direction,
a plane counter-pressure surface at substantially right angles to said laminating direction, and
displacement means for displacing said laminating pad in said laminating direction towards said counter-pressure surface.

24. A laminating station according to claim 23, wherein the surface of said laminating pad destined to exert said laminating pressure on said wafer is domed or convex in said laminating direction.

25. A laminating station according to claim 23, wherein said laminating pad is made of silicone.

26. A laminating station according to claim 23, wherein said laminating pad is a printer's pad designed for printing on a surface.

27. A laminating station according to claim 23, wherein said laminating pad has a hardness between SHORE A3 and SHORE A9.

28. A laminating station according to claim 23, wherein said laminating pad has a hardness between SHORE A5 and SHORE A7.

29. A laminating station according to claim 23, wherein said counter-pressure surface is adapted for being displaced to and fro in said laminating direction.

30. A laminating station according to claim 23, wherein said counter-pressure surface is the surface of a resilient counter-pressure pad.

31. A laminating station according to claim 30, wherein said counter-pressure pad is made of one of silicone or neoprene.

32. A laminating station according to claim 30, the surface of said counter-pressure pad destined to abut said backing layer is domed or convex in the direction opposition said laminating direction.